

### IDAHO FALLS FIRE DEPARTMENT

Fire Prevention Division 343 E Street, Idaho Falls, ID 83402 (208) 612-8497

# Fire Code Requirements for Tents and Membrane Structures

**MEMBRANE STRUCTURE** - An air-inflated, air-supported, cable or frame-covered structure as defined by the International Building Code and not otherwise defined as a tent. See Chapter 31 of the International Building Code.

**TENT -** A structure, enclosure or shelter constructed of fabric or pliable material supported by any manner except by air or the contents that it protects.

**Approval required -** Tents and membrane structures having an area in excess of 400 square feet (37 m2) shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the fire code official.

#### **Exceptions:**

- 1. Tents used exclusively for recreational camping purposes.
- 2. Tents open on all sides which comply with all of the following:
  - 1. Individual canopies having a maximum size of 700 square feet (65 m2).
  - 2. The aggregate area of multiple canopies placed side by side without a fire break clearance of 12 feet (3658 mm), not exceeding 700 square feet (65 m2) total.
  - **3**. A minimum clearance of 12 feet (3658 mm) to all structures and other tents.

If your tent or canopy is greater than 1500 square feet, you need to submit a detailed plan to the Fire Prevention Bureau. Contact us for what you need to include in the plan.

**Location -** Tents, canopies or membrane structures shall not be located within 20 feet (6096 mm) of lot lines, buildings, other tents, canopies or membrane structures, parked vehicles or internal combustion engines. For the purpose of determining required distances, support ropes and guy wires shall be considered as part of the temporary membrane structure, tent or canopy.

#### **Exceptions:**

- **1.** Separation distance between membrane structures, tents and canopies not used for cooking, is not required when the aggregate floor area does not exceed 15,000 square feet (1394 m2). (This does not apply to distance required from permanent structures.)
- **2.** Membrane structures, tents or canopies need not be separated from buildings when **all** of the following conditions are met:
  - 1. The aggregate floor area of the membrane structure, tent or canopy shall not exceed 10,000 square feet (929 m2).
  - **2.** The aggregate floor area of the building and membrane structure, tent or canopy shall not exceed the allowable floor area including increases as indicated in the *International Building Code*. (You will need to contact the City Building Dept. to determine this.)
  - **3**. Required means of egress provisions are provided for both the building and the membrane structure, tent or canopy, including travel distances.
  - **4.** Fire apparatus access roads are provided in accordance with Section 503.



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**Fire break -** An unobstructed fire break passage-way or fire road not less than 12 feet (3658 mm) wide and free from guy ropes or other obstructions shall be maintained on all sides of all tents, canopies and membrane structures unless otherwise approved by the fire code official.

**Anchorage required -** Tents, canopies or membrane structures and their appurtenances shall be adequately roped, braced and anchored to withstand the elements of weather and prevent against collapsing. Documentation of structural stability shall be furnished to the fire code official on request.

**Exit Requirements -** The easiest way to determine exit requirements is to contact the Fire Prevention Bureau.

**Flame-resistant treatment -** Before a permit is granted, the owner or agent shall file with the fire code official a certificate executed by an approved testing laboratory, certifying that the tents, canopies and membrane structures and their appurtenances, sidewalls, drops and tarpaulins, floor coverings, bunting, combustible decorative materials and effects, including sawdust when used on floors or passageways, shall be composed of flame-resistant material or shall be treated with a flame retardant in an approved manner and meet the requirements for flame resistance as determined in accordance with **NFPA 701**, and that such flame resistance is effective for the period specified by the permit.

**Label -** Membrane structures, tents or canopies shall have a permanently affixed label bearing the identification of size and fabric or material type.

**Certification -** An affidavit or affirmation shall be submitted to the fire code official and a copy retained on the premises on which the tent or air-supported structure is located. The affidavit shall attest to the following information relative to the flame resistance of the fabric:

- 1. Names and address of the owners of the tent, canopy or air-supported structure.
- **2.** Date the fabric was last treated with flame-resistant solution.
- **3.** Trade name or kind of chemical used in treatment.
- **4.** Name of person or firm treating the material.
- **5.** Name of testing agency and test standard by which the fabric was tested.

Combustible materials - Hay, straw, shavings or similar combustible materials shall not be located within any tent, canopy or membrane structure containing an assembly occupancy, except the materials necessary for the daily feeding and care of animals. Sawdust and shavings utilized for a public performance or exhibit shall not be prohibited provided the saw-dust and shavings are kept damp. Combustible materials shall not be permitted under stands or seats at any time. The areas within and adjacent to the tent or air-supported structure shall be maintained clear of all combustible materials or vegetation that could create a fire hazard within 20 feet (6096 mm) from the structure. Combustible trash shall be removed at least once a day from the structure during the period the structure is occupied by the public.

**Smoking -** Smoking shall not be permitted in tents, or membrane structures. Approved "No Smoking" signs shall be conspicuously posted in accordance with **Section 310.** 

**Clearance -** There shall be a minimum clearance of at least 3 feet (914 mm) between the fabric envelope and all contents located inside the tent or membrane structure.



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Portable fire extinguishers - Portable fire extinguishers shall be provided as required by Section 906.

**Vegetation removal -** Combustible vegetation shall be removed from the area occupied by a tent, canopy or membrane structure, and from areas within 30 feet (9144 mm) of such structures.

**Waste material -** The floor surface inside tents, canopies or membrane structures and the grounds outside and within a 30-foot (9144 mm) perimeter shall be kept clear of combustible waste. Such waste shall be stored in approved containers until removed from the premises.

There are other possible requirements not listed here. Please call us for a consultation.